

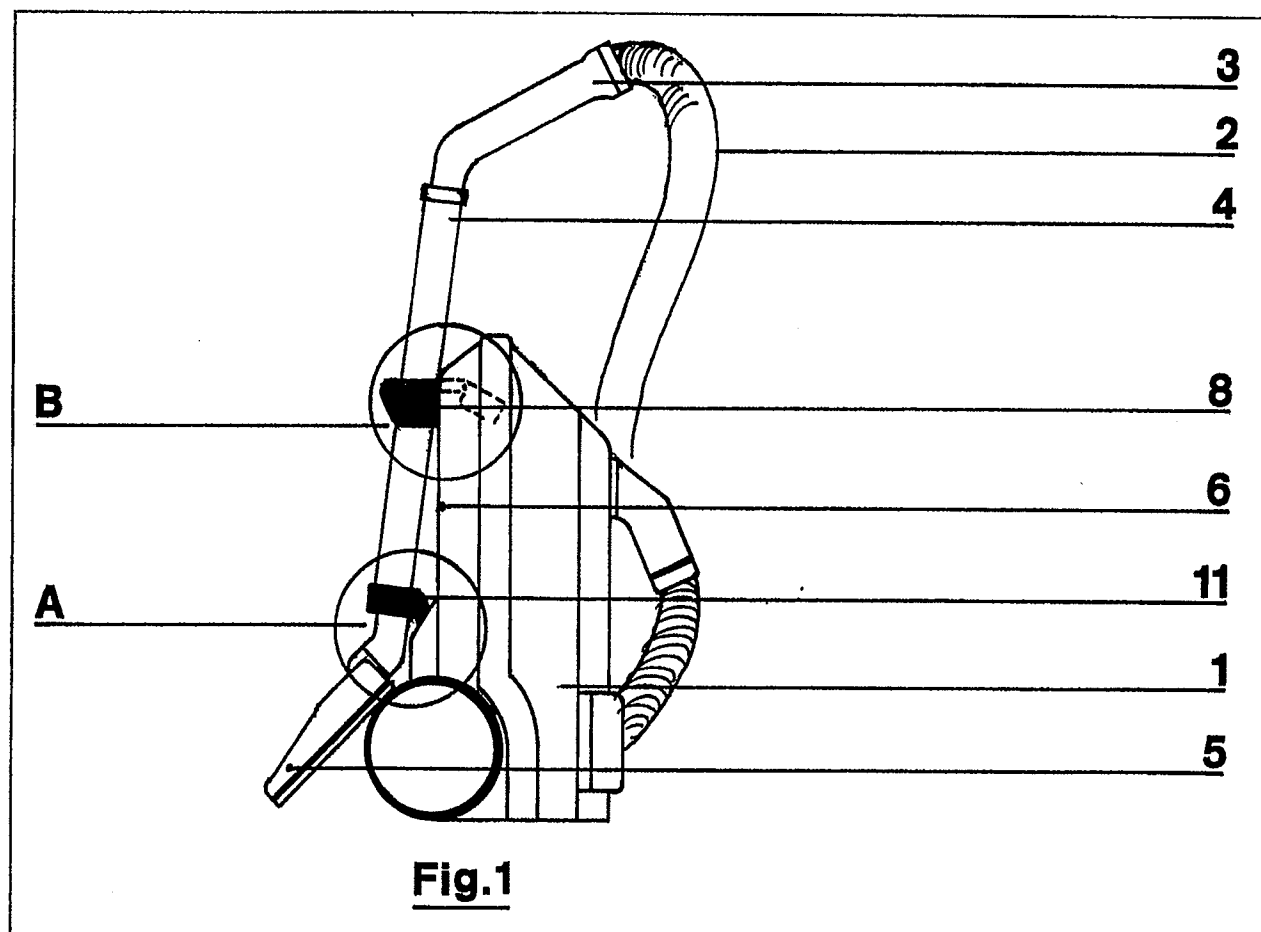
(12) UK Patent Application (19) GB (11) 2 128 075 A

(21) Application No 8326231
(22) Date of filing 30 Sep 1983
(30) Priority data
(31) 8227688
(32) 2 Oct 1982
(33) Fed. Rep of Germany (DE)
(43) Application published
26 Apr 1984
(51) INT CL³
A47L 9/00
(52) Domestic classification
A4F 12J 12X
(56) Documents cited
GB 0824422
GB 0800202
(58) Field of search
A4F
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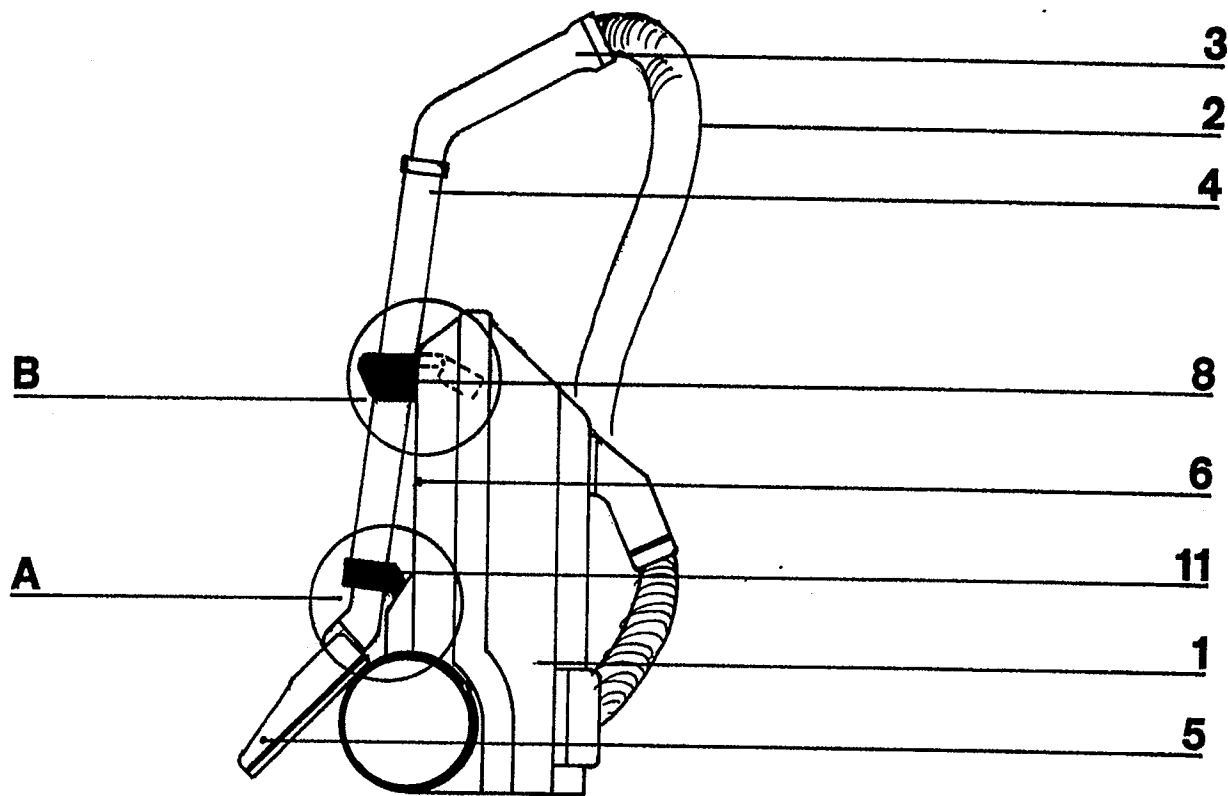
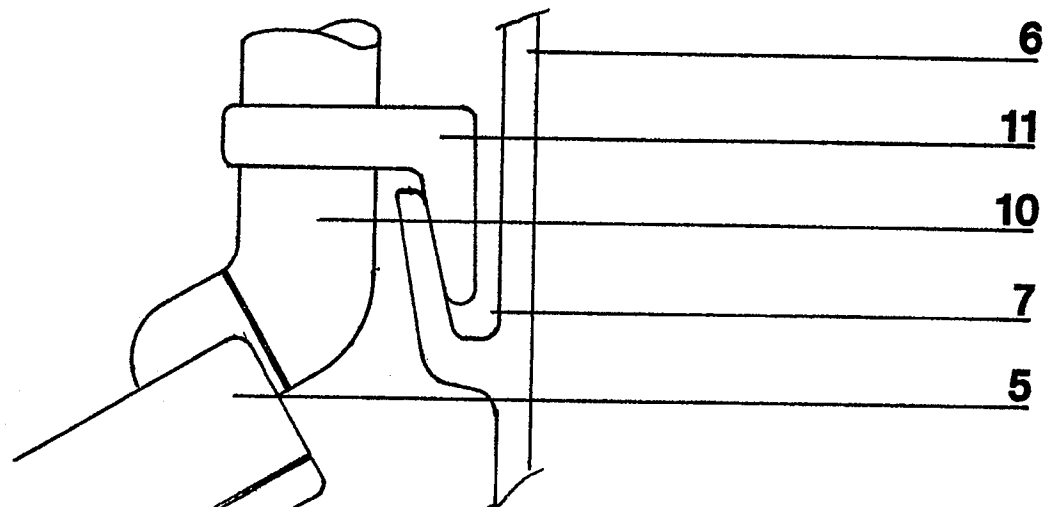
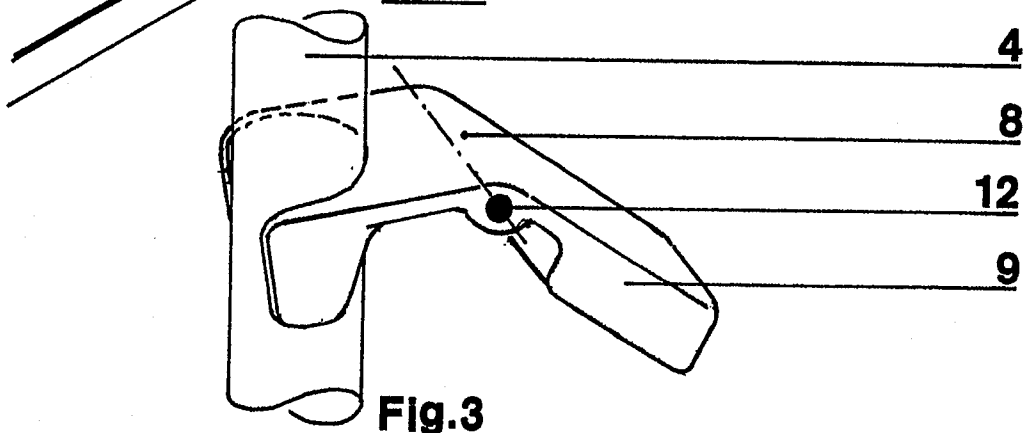
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(54) Vacuum cleaner

(57) A vacuum cleaner has a suction tube nozzle unit including a suction tube (4) and suction nozzle (5) and a mounting for the suction tube nozzle unit on the housing of the vacuum cleaner, said mounting comprising a recess in the housing of the vacuum cleaner which is engaged by a catch (11) on the suction tube nozzle unit and also a clip (8) for receiving suction tube (4), the clip (8) being pivotally mounted on the housing.



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**Fig.1****Fig.2****Fig.3**

SPECIFICATION

Vacuum cleaner

5 This invention relates to vacuum cleaners having a suction tube nozzle unit including a suction tube and suction nozzle.

Generally, in vacuum cleaners, the suction hose of the suction tube nozzle unit is connected to the housing. For transporting and storage purposes it is frequently necessary to detach the suction tube nozzle unit from the vacuum cleaner housing and transport and store the individual part of the vacuum cleaner separately. The disadvantage of this is that the connections are subject to exceptional wear. This leads to poor seals at connections, with a subsequent loss of suction force. Furthermore, the storage of the individual parts and the laborious assembly of these parts before the vacuum cleaner is used are unnecessarily time-consuming operations. It is therefore more convenient not to remove the suction tube nozzle unit from the vacuum cleaner. This is not entirely without danger when the vacuum cleaner is being transported.

The object of the invention is to do away with the need to undo the connection between the suction tube nozzle unit and the vacuum cleaner housing during transportation and when the cleaner is not in use, whilst still allowing the cleaner to be transported and stored compactly.

According to the invention there is provided a vacuum cleaner having a suction tube nozzle unit including a suction tube and suction nozzle and means for mounting the suction tube nozzle unit on the housing of the vacuum cleaner in the non-use position of the cleaner for storage and transportation thereof, said mounting means comprising interchangeable catch means provided on the base of the housing of the vacuum cleaner and on the suction nozzle and a tube clip provided on the base of the housing for receiving the suction tube of the suction tube nozzle unit, the clip being pivotally mounted on the housing.

According to the invention there is also provided a vacuum cleaner including a suction tube nozzle unit comprising a suction tube and suction nozzle and a mounting provided on the vacuum cleaner housing in the region of the base thereof for the suction tube nozzle unit, said mounting comprising a retaining recess provided in the housing, a catch being formed on the suction nozzle connector and corresponding to the retaining recess, and a suction tube clip pivotally mounted on the housing.

The suction tube nozzle unit is attached to the vacuum cleaner housing, during transportation and when the cleaner is not in use, by the mounting means according to the invention. The advantage of this is that the vacuum cleaner together with the suction tube nozzle unit attached thereto can easily be transported and is nevertheless ready for use. The complicated assembly and taking apart of the individual parts before or after the vacuum-cleaning operation and the stowing away of these parts is dispensed with. This prevents the resultant wear on

the connections, and there is no loss of suction force caused by poor seals at these points.

In a preferred embodiment the holding clip is formed as part of a counterweighted cover and the counterweight causes the cover and holding clip to pivot automatically out of a withdrawn position in the base of the vacuum cleaner into its operative position according to the actual position of the vacuum cleaner. This has the advantage that, in the operating position of the vacuum cleaner, the holding clip is withdrawn into the base of the vacuum cleaner and, when the cleaner is not in use, is pivoted out of this position. Thus, the interior of the housing is always closed off by the cover and during vacuum-cleaning the holding clip does not protrude from the housing.

An embodiment of the invention is shown in the drawings and described by way of example more fully hereinafter. In the drawings:

Figure 1 shows a vacuum cleaner with a suction tube nozzle unit attached thereto;

Figure 2 shows a detail "A" from *Figure 1*;

Figure 3 shows a detail "B" from *Figure 1*.

The vacuum cleaner according to the invention is shown by way of example, in the non-use position in *Figure 1*. The suction tube nozzle unit consisting of suction hose 2, handle 3, suction tube 4 and suction nozzle 5 is attached to the housing 1 of the vacuum cleaner. A retaining recess 7 and a suction tube clip 8 are provided on the housing base 6 for attaching the suction tube nozzle unit to the housing 1. The retaining recess 7 is formed on the housing base 6, whilst the suction tube clip 8 is pivotally mounted on the base 6. The clip 8 is preferably formed as a cover, including a counterweight 9. A catch 11 is formed on the suction nozzle connector 10.

When the vacuum cleaner is used, the suction tube nozzle unit is disengaged from the clip 8 and the catch 11 is lifted out of the retaining recess 7.

The clip 8 thereby pivots about its axis 12 and closes off the interior of the housing 1. At those times when the vacuum cleaner according to the invention is not in use, it takes up remarkably little storage space. For storage or transportation the suction tube nozzle unit 4 is attached to the housing 1. To achieve this, the clip 8 is pivoted out of the housing about its pivot axis 12, thus making the suction tube clip 8 accessible from the outside of the housing base 6. The suction tube nozzle unit is attached to the suction tube clip 8 and the catch 11 is engaged in the retaining recess 7 on the housing base 6. Not only can a vacuum cleaner of this kind be stored extremely compactly, taking up the minimum space, but it can also advantageously be safely conveyed from one place of use to another as the need arises.

CLAIMS

1. Vacuum cleaner including a suction tube nozzle unit comprising a suction tube and suction nozzle and a mounting provided on the vacuum cleaner housing in the region of the base thereof for the suction tube nozzle unit, said mounting comprising a retaining recess provided in the housing, a catch

being formed on the suction nozzle connector and corresponding to the retaining recess, and a suction tube clip pivotally mounted on the housing.

2. Vacuum cleaner as claimed in claim 1 wherein the clip is in the form of a pivotable cover.

3. Vacuum cleaner as claimed in claim 2 wherein the clip is connected with a counterweight and the counterweight rotates the clip into the closed position to close off the interior of the housing.

10 4. Vacuum cleaner having a suction tube nozzle unit including a suction tube and suction nozzle and means for mounting the suction tube nozzle unit on the housing of the vacuum cleaner in the non-use position of the cleaner for storage and transportation

15 thereof, said mounting means comprising interchangeable catch means provided on the base of the housing of the vacuum cleaner and on the suction nozzle and a tube clip provided on the base of the housing for receiving the suction tube of the suction tube nozzle unit, the clip being pivotally mounted on the housing and counterweighted to be automatically withdrawn when the vacuum cleaner is in use.

5. Vacuum cleaner substantially as described with reference to the accompanying drawings.